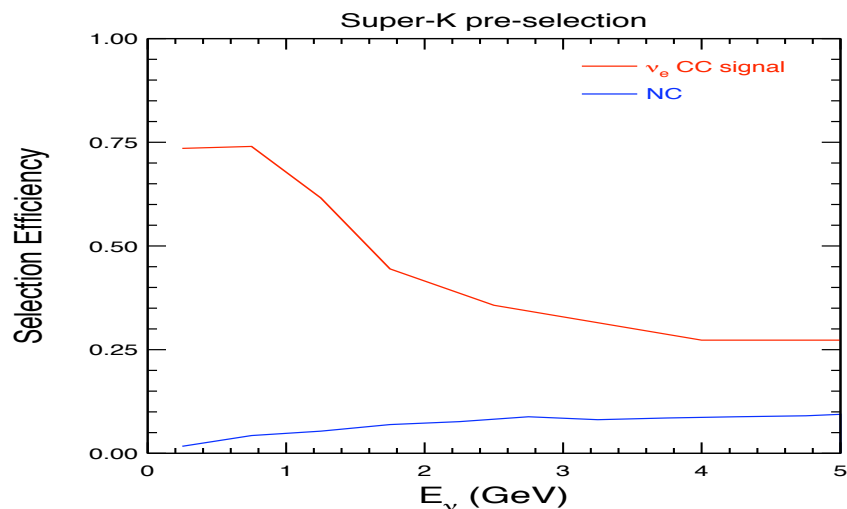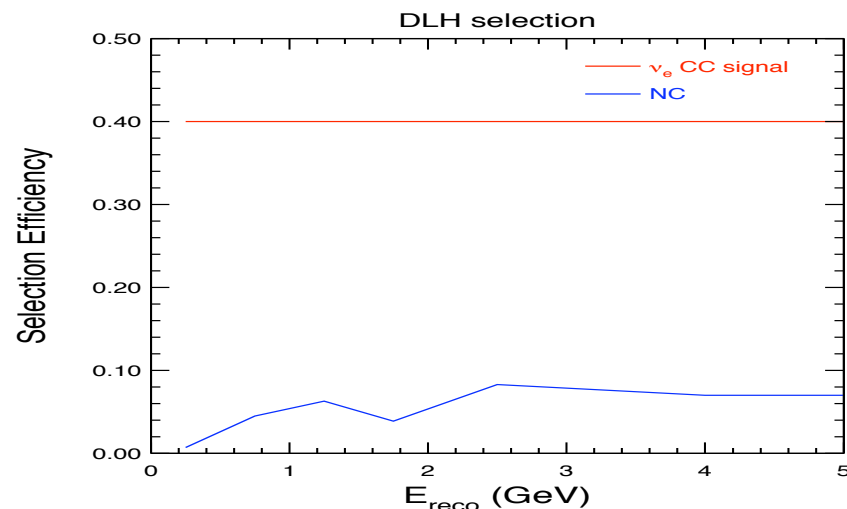# Water Cerenkov Simulation

**The $\nu_{atm}$ GEANT simulation of SuperKamiokande is used.**

**An $\pi^0$ reconstruction algorithim called "Pattern Of Light Fit" is used as input to a likelihood (DLH) analysis to reconstruct $\pi^0 \rightarrow \gamma\gamma$ by looking for the 2nd ring.** Independent studies by Chiaki Yanagisawa for FNAL-DUSEL WBB and Fanny Dufour for T2KK produce similar efficiency for signal and background.



Standard Super-K pre-selection efficiencies

DLH selection efficiencies (Chiaki Y.)

**WCe. energy dependent efficiencies and smearing implemented in GLoBeS.**